PREPARED IN COLLABORATION WITH:

ALASKA DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS

RUSSIAN ACADEMY OF SCIENCES

GEOLOGICAL SURVEY OF CANADA

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EXXON PRODUCTION RESEARCH COMPANY

LIST OF MAP UNITS

AGE AND LITHOLOGIC ABBREVIATIONS FOR MESOZOIC AND

CENOZOIC OVERLAP SEDIMENTARY ASSEMBLAGES

AND BASINAL DEPOSITS

MICHIGAN STATE UNIVERSITY

GEOLOGICAL SURVEY OF JAPAN

Sedimentary rocks (Quaternary)

Sedimentary rocks (Cenozoic)

Sedimentary rocks (Quaternary and late Tertiary)

CzKsv Sedimentary and volcanic rocks (Cretaceous and Cenozoic)

Sedimentary rocks (Late Cretaceous and early Tertiary)

Sedimentary rocks (Early Cretaceous and Late Jurassic)

Sedimentary and volcanic rocks (Early Cretaceous and Late Jurassic)

AGE AND LITHOLOGIC ABBREVIATIONS FOR

AND BASINAL DEPOSITS

(Note: Felsic includes silicic and intermediate igneous rocks.)

CENOZOIC AND MESOZOIC OVERLAP VOLCANIC ASSEMBLAGES

Sedimentary rocks (early Tertiary to Late Jurassic)

Sedimentary and volcanic rocks (Cenozoic)

CzKs Sedimentary rocks (Cretaceous and Cenozoic)

Sedimentary rocks (early Tertiary)

Sedimentary rocks (Cretaceous)

Sedimentary rocks (Early Cretaceous)

Sedimentary rocks (Late Jurassic)

Intermediate volcanic rocks (Quaternary)

OTvm Mafic volcanic rocks (Quaternary and late Tertiary)

Intermediate volcanic rocks (early Tertiary)

TKvs Felsic volcanic rocks (early Tertiary and Late Cretaceous)

TKvm Mafic volcanic rocks (early Tertiary and Late Cretaceous)

Intermediate volcanic rocks (Late Cretaceous)

Intermediate volcanic rocks (Early Cretaceous)

Volcanic rocks (Early Cretaceous and Jurassic)

Felsic volcanic rocks (Early Cretaceous and Jurassic)

Volcanic rocks (early Tertiary and Late Cretaceous)

Felsic volcanic rocks (Quaternary and late Tertiary)

Intermediate volcanic rocks (Quaternary and late Tertiary)

Intermediate volcanic rocks (early Tertiary and Late Cretaceous)

AGE AND LITHOLOGIC ABBREVIATIONS FOR PLUTONIC ROCKS

(Note: Felsic includes silicic and intermediate igneous rocks.)

Felsic volcanic rocks (Quaternary)

Basalt (Quaternary and late Tertiary)

Felsic volcanic rocks (middle Tertiary)

mTvi Intermediate volcanic rocks (middle Tertiary)

Intermediate volcanic rocks (Cenozoic)

Intermediate volcanic rocks (Cretaceous)

Felsic volcanic rocks (Late Jurassic)

Mafic volcanic rocks (Late Jurassic)

Uvm Mafic volcanic rocks (Late Jurassic)

QTpf Felsic plutonic rocks (late Tertiary)

mTpf Felsic plutonic rocks (middle Tertiary)

mTpm Mafic plutonic rocks (middle Tertiary)

Felsic plutonic rocks (Tertiary)

mKpf Felsic plutonic rocks (mid-Cretaceous)

Felsic plutonic rocks (Cretaceous)

Felsic plutonic rocks (early Tertiary)

Felsic plutonic rocks (Late Cretaceous)

Intermediate plutonic rocks (Cretaceous)

Felsic plutonic rocks (Early Cretaceous)

Felsic plutonic rocks (Late Jurassic)

Felsic granitic rocks (middle Paleozoic)

Felsic plutonic rocks (Jurassic) Felsic granitic rocks (late Paleozoic)

Felsic granitic rocks (Proterozoic)

Bering Sea)

Russian Southeast)

TKpf Felsic plutonic rocks (early Tertiary and Late Cretaceous)

Mafic and ultramafic plutonic rocks (Cretaceous)

Felsic plutonic rocks (early Tertiary and Late Cretaceous)

Felsic plutonic rocks (Late Jurassic and Early Cretaceous)

Chukchi Sea, and adjacent area)

Siberian Sea and adjacent areas)

and southern Canadian Cordillera)

Peninsula, and Southwestern Alaska)

Bowers Ridge volcanic belt (early Tertiary?) (Bering Sea)

Pacific Northwest and Canadian Cordillera)

Central Okhotsk sedimentary basin (Cenozoic) (Sea of Okhotsk)

Deryugin sedimentary basin (Cenozoic) (Sea of Okhotsk)

(Eastern part of Russian Southeast)

part of Canadian Cordillera)

Canadian Cordillera)

Lawrence Island, Alaska)

Cordillera)

Eastern Sakhalin sedimentary basin (Cenozoic) (Sea of Okhotsk)

Graben zone (Cenozoic) (East Siberian Sea and adjacent areas)

(Southern and southwestern Alaska)

Jurassic) (East-central Alaska)

Kuskokwim Group (Cretaceous) (Southwestern Alaska) Lebed sedimentary basin (Cenozoic) (Eastern Sea of Okhotsk)

Makarov sedimentary basin (Cenozoic) (Sea of Okhotsk)

adjacent area)

Peninsula and eastern Russian Northeast)

and early Tertiary) (Southwestern Alaska)

Kuril volcanic arc (early Miocene to Holocene) (Kamchatka Peninsula)

Hope sedimentary basin (Late Cretaceous to Quaternary) (Chukchi Sea)

Paleogene to Holocene) (Hokkaido Island, Japan)

and central Canadian Cordillera)

(Kamchatka Peninsula)

Pacific Northwest)

Aniva sedimentary basin (Cenozoic) (Southern Sea of Okhotski

Cretaceous and early Tertiary) (Southern Alaska)

NAME ABBREVIATIONS FOR OVERLAP SEDIMENTARY AND

VOLCANIC ASSEMBLAGES, BASINAL DEPOSITS, AND IGNEOUS ARCS

abbreviations for map symbols displayed in parentheses on

Peninsula. Aleutian Islands, and Komandorsky Islands)

Aleutian volcanic arc - volcanic part (early Tertiary to Holocene) (Alaska

Alpha-Mendeleev Ridge (late Early Cretaceous to Paleogene) (Beaufort Sea

Amerasia sedimentary basin (Early Cretaceous to Quaternary) (Canadian Arctic

Alaska Range-Talkeetna Mountains volcanic-plutonic belt -volcanic part (Late

Aleutian-Bowers sedimentary basin (Cenozoic) (Northern Pacific Ocean and

Blagoveshchensk sedimentary basin (Late Cretaceous to Quaternary) (East

Bowser sedimentary assemblage (Middle Jurassic to Early Cretaceous) (Central

Bering Sea volcanic belt (late Tertiary and Quaternary) (Bering Sea, Seward

Bureya sedimentary basin (Jurassic and Early Cretaceous) (Northwestern part of

Cascade volcanic-plutonic belt (late Eocene to Quaternary) (Central and southern

Columbia River Basalt Group (Miocene) (U.S.A. Pacific Northwest and southern

Cordilleran sedimentary foreland basin (Late Jurassic to early Tertiary) (U.S.A.

Charlie sedimentary basin (Cenozoic) (Beaufort Sea, Chukchi Sea, and adjacent

Central Kamchatka volcanic and sedimentary basin (Oligocene to Holocene)

Coast-North Cascade plutonic belt (Late Cretaceous to early Tertiary)

De Long sedimentary basin (Cenozoic) (Beaufort Sea, Chukchi Sea, and adjacent

East Kamchatka volcanic belt (Pliocene to Holocene) (Eastern Kamchatka

East Sikhote-Alin volcanic-plutonic belt (Late Cretaceous and early Tertiary)

Georgia Basin sedimentary assemblage (Late Cretaceous to Tertiary) (Southern

Gravina-Nutzotin-Gambier volcanic-plutonic-sedimentary belt (Late Jurassic and

Interior Alaska volcanic belt (middle Tertiary) (West-Central Alaska and Saint

shikari-Tenpoku-Hidaka sedimentary-volcanic basin (Cretaceous and late

Indigirka-Oloy sedimentary-volcanic-plutonic assemblage (Middle Jurassic to

Kamloops volcanic belt (early Tertiary) (Central and southern Canadian

Central Kamchatka volcanic belt (Eocene to Quaternary) (Central Kamchatka

Kahiltna sedimentary and volcanic assemblage (Late Jurassic and Cretaceous)

nchatka-Koryak volcanic belt (Late Cretaceous to Miocene) (Kamchatka

Kuskokwim Mountains sedimentary, volcanic, and plutonic belt (Late Cretaceous

Kandik River sedimentary overlap assemblage (Early Cretaceous and Late

Khingan-Okhotsk volcanic-plutonic belt (Cretaceous) (Northern part of Russian

Middle Amur sedimentary basin (Late Cretaceous and Cenozoic) (Russian

Northwind sedimentary basin (Cenozoic) (Beaufort Sea, Chukchi Sea, and

Kuibiveem sedimentary assemblage (Cretaceous) (Eastern Russian Northeast)

Early Cretaceous) (Southeastern to northwestern Russian Northeast)

Early Cretaceous) (Eastern-southern Alaska, southeastern Alaska, and

(southeastern Alaska, western Canadian Cordillera, and northern U.S.A.

Colville sedimentary basin (Cretaceous and Cenozoic) (Northern Alaska)

Carmacks volcanic field (Late Cretaceous) (Northern Canadian Cordillera)

East Japan volcanic belt (Neogene to Holocene) (Hokkaido Island, Japan)

Canadian Cordillera and U.S.A. Pacific Northwest)

Islands, Beaufort Sea, Chukchi Sea, East Siberia Sea and adjacent area)

5.0-million-scale maps where space permits]

Intermediate plutonic rocks (early Tertiary and Late Cretaceous)

mTp Plutonic rocks (middle Tertiary)

Intermediate plutonic rocks (late Tertiary)

mTvm Mafic volcanic rocks (middle Tertiary)

eTvm Mafic volcanic rocks (early Tertiary)

Volcanic rocks (Tertiary)

Volcanic rocks (Cenozoic)

Volcanic rocks (Cretaceous)

Sedimentary rocks (Jurassic)

UNIVERSITY OF ALASKA

ABBREVIATIONS FOR MAJOR FAULTS

Anzhu fault (East Siberian Sea) Amur fault (Russian Southeast) Arlis transform fault (East Siberian Sea) Arsenev strike-slip fault (Russian Southeast) Buck Bay fault (U.S.A. Pacific Northwest) Broxson Gulch thrust fault (Alaska) Bilvakchan fault (Russian Northeast) Border Ranges thrust fault system (Alaska and Canadian Cordillera) Burkhala fault (Russian Northeast) Coast Belt thrust system (Canadian Cordillera) Chugach-St. Elias dextral-slip fault (Alaska) Charky-Indigirka thrust fault (Russian Northeast) Contact thrust fault (Alaska) Columbia River normal fault (U.S.A. Pacific Northwest) Central Sikhote-Alin strike-slip fault (Russian Southeast) Chatham Strait dextral-slip fault (Alaska and Canadian Cordillera) Dawson thrust (Canadian Cordillera) Denali dextral-slip fault (Alaska) (Shakwak fault in Canadian Cordillera) Darpir strike-slip fault (Russian Northeast) Dzheltula strike-slip fault (Russian Southeast) Entiate fault (U.S.A. Pacific Northwest) Fairweather dextral-slip fault (Alaska) Fraser-Straight Creek dextral-slip fault (Canadian Cordillera) Grechishkin thrust fault (Kamchatka Peninsula) Harrison dextral-slip (Canadian Cordillera) Hozameen strike-slip fault (Canadian Cordillera) Hurricane Ridge thrust fault (Canadian Cordillera and U.S.A. Pacific Northwest) Kaltag dextral-slip fault (Alaska) Khingan strike-slip fault (Russian Southeast) Kobuk-South Fork strike-slip fault (Alaska) Kur strike-slip fault (Russian Southeast) King Salmon thrust fault (Canadian Cordillera) Kyilakan thrust belt (Russian Northeast) Lower Aldan thrust fault and strike-slip zone (Russian Northeast) Lena thrust belt (Russian Northeast) Lan River thrust fault (Russian Southeast) Lyakhov-South Anyui fault (Russian Northeast) Mongol-Okhotsk strike-slip fault (Russian Southeast) Myatis thrust fault (Russian Northeast) Nixon Fork dextral-slip fault (Alaska) Nenana Glacier dextral-slip fault (Alaska) Northern Rocky Mountain Trench dextral-slip fault (Canadian Cordillera) North Tukuringra thrust fault (Russian Southeast)

Okanogan normal fault (Canadian Cordillera) Pasayten sinstral-slip and thrust fault (Canadian Cordillera and U.S.A. Pacific Pinchi dextral-slip fault (Canadian Cordillera) Paukan fault (Russian Southeast) Queen Charlotte dextral-slip fault (Alaska and Canadian Cordillera) Ross Lake dextral-slip fault (Canadian Cordillera and U.S.A. Pacific Northwest) South Aldan thrust and strike-slip fault zone (Russian Northeast) San Juan fault (U.S.A. Pacific Northwest) Central Sakhalin fault (Sakhalin Island, Russian Southeast)

Slocan Lake normal fault (Canadian Cordillera) Skeena thrust fault (Canadian Cordillera) Spiridonov thrust fault (Russian Northeast) South Tukuringra thrust fault (Russian Southeast) Talkeetna thrust fault (Alaska) Tabanin strike-slip fault (Russian Northeast) Teslin dextral-slip fault (U.S.A. Pacific Northwest Tintina dextral-slip fault (Alaska and Canadian Cordillera) Tombstone thrust (Canadian Cordillera) Transition fault (Alaska) Ulakhan strike-slip fault (Russian Northeast) Vatyn thrust fault (Russian Northeast)

West Fork fault (Alaska)

Waneta thrust fault (Canadian Cordillera)

Yarkhodon thrust fault (Russian Northeast)

Wrangell fault (East Siberian Sea)

Western Primorsk thrust fault (Russian Southeast)

Yalakom dextral-slip fault (Canadian Cordillera)

Adycha-Taryn thrust fault (Russian Northeast)

Pekul'ney terrane (accretionary wedge and subduction zone - predominantly oceanic rocks) (Northeastern part of Russian Northeast) Pingston terrane (turbidite basin) (Central Alaska Range, Alaska) Pacific Rim terrane (accretionary wedge or subduction zone - predominantly turbidites) (Southwestern Canadian Cordillera and northwestern U.S.A. Prince William terrane (accretionary wedge or subduction zone - predominantly turbidites) (Coastal southern Alaska) Quesnellia terrane (island arc) (Central part of Canadian Cordillera) Ruby terrane (metamorphosed continental margin) (Northern west-central

South Anyui terrane (Northern part of Russian Northeast) SAS Shalaurov subterrane (subduction zone - predominantly oceanic rocks) (Northern part of Russian Northeast) Uyamkanda subterrane (subduction zone - predominantly oceanic rocks) (Northern part of Russian Northeast) Stolbovskoy terrane (island arc) (Northern Kamchatka Peninsula)

Seward terrane (metamorphosed continental margin) (Seward Peninsula, Alaska and Chukotsk Peninsula. Northeastern Russian Northeast) Shelikovsk collage (Sea of Okhotsk) Shmidt terrane (island arc) (Sakhalin Island) Slide Mountain (accretionary wedge and subduction zone - predominantly oceanic rocks) (East-central part of Canadian Cordillera) Samarka terrane (accretionary wedge and subduction zone - predominantly

Ekonay terrane (accretionary wedge and subduction zone - predominantly oceanic rocks) (Eastern Koryak Highlands, Northeastern Russian Northeast) Goodnews terrane (accretionary wedge and subduction zone - predominantly oceanic rocks) (Southwestern Alaska) oceanic rocks) (Eastern part of Russian Southeast) Galam terrane (Northern part of Russian Southeast) Sredinnyi-Kamchatka terrane (metamorphic) (Southern Kamchatka Peninsula) GLG Galam River subterrane (accretionary wedge and subduction zone Stikinia terrane (island arc) (southeastern Alaska and west-central Canadian predominantly oceanic rocks) (Northern part of Russian Southeast) Cordillera) Nilan subterrane (accretionary wedge and subduction zone Stikinia(?) terrane (island arc) (East-central Alaska) predominantly oceanic rocks) (Northern part of Russian Southeast) Susitna terrane (seamount) (Southern Alaska Tugur subterrane (accretionary wedge and subduction zone Seventymile terrane (accretionary wedge and subduction zone - predominantly

predominantly oceanic rocks) (Northern part of Russian Southeast) oceanic rocks) (East-Central Alaska) Gonzha terrane (cratonal) (Western part of Russian Southeast) Swakane terrane (cratonal) (Northern part of U.S.A. Pacific Northwest) Gar terrane (oceanic crust, seamount, or ophiolite) Sorachi-Yezo terrane (correlated with West Sakhalin terrane) (turbidite basin) (Northwestern part of Russian Southeast) (Hokkaido Island, Japan) Grindstone terrane (accretionary wedge - predominantly turbidites) (Southeastern Siletzia terrane (accretionary wedge and subduction zone - predominantly oceanic part of U.S.A. Pacific Northwest) rocks) (Western part of U.S.A. Pacific Northwest) Ganal'skiy terrane (metamorphic) (Southern part of Kamchatka Peninsula) Taku terrane (island arc) (Eastern part of southeastern Alaska) Harrison Lake terrane (island arc) (Southwestern Canadian Cordillera and Tukuringra-Dzhagdi terrane (accretionary wedge and subduction zone northwestern U.S.A. Pacific Northwest) predominantly oceanic rocks) (Northern part of Russian Southeast)

Henrietta terrane (passive continental margin) (East Siberian Sea) Togiak terrane (island arc) (Southwestern Alaska) Hikada terrane (accretionary wedge and subduction zone - predominantly oceanic Tikchik terrane (island arc) (Southwestern Alaska) Talovskiy terrane (Koryak Highlands, eastern Russian Northeast) Hidaka-Aniva collage (Sea of Okhotsk) TLA Ainynskiy subterrane (accretionary wedge - predominantly turbidites) Hoh terrane (accretionary wedge or subduction zone - predominantly turbidites) (Koryak Highlands, eastern Russian Northeast) (Southwestern Canadian Cordillera and Northwestern U.S.A. Pacific Kuyul subterrane (accretionary wedge - predominantly oceanic rocks) (Koryak Highlands, eastern Russian Northeast) Ingalls terrane (accretionary wedge and subduction zone - predominantly oceanic Tokoro-Nabilsky collage (Sea of Okhotsk) rocks) (North-central part of U.S.A. Pacific Northwest) Tokoro terrane (accretionary wedge and subduction zone - predominantly oceanic Iruneiskiy terrane (island arc) (Kamchatka Peninsula) rocks) (Hokkaido Island, Japan)

Izee terrane (turbidite basin) (Southeastern part of U.S.A. Pacific Northwest) Khabarovsk terrane (accretionary wedge and subduction zone - predominantly turbidites) (East-central part of Russian Southeast) Kema terrane (island arc) (Eastern part of Russian Southeast) Khanka superterrane (Southern part of Russian Southeast) KHG Sergeevka terrane (continental-margin arc) (Southern part of Russian Southeast) Kabarga terrane (continental-margin arc) (Southern part of Russian Southeast) Spassk terrane (accretionary wedge - predominantly turbidites) (Southern part of

Institute of Oceanology collage (Sea of Okhotsk)

Kony-Murgal terrane (Southeastern part of Russian Northeast)

Chukotka terrane (Northern part of Russian Northeast)

Russian Northeast)

Pacific Northwest)

Siberia Sea)

CHA Anyui subterrane (passive continental margin) (Northern part of Russian

CHC Chauna subterrane (passive continental margin) (Northern part of

Chilliwack River terrane (island arc) (Southern British Columbia, Canadian

Chukchi Cap terrane (passive continental margin) (age unknown) (Beaufort Sea,

Coldfoot terrane (metamorphosed continental margin) (Southern Brooks Range,

Dorsey terrane (passive continental margin) (East-central part of Canadian

Easton terrane (accretionary wedge and subduction zone - predominantly oceanic

rocks) (Southeastern Canadian Cordillera and northwestern U.S.A.

Cordillera and northern U.S.A. Pacific Northwest)

Crazy Mountains terrane (passive continental margin) (East-central Alaska)

Dillinger terrane (passive continental margin) (West-central Alaska)

Clearwater terrane (island arc) (Central Alaska Range, Alaska)

Chukchi Sea, and adjacent area)

Wrangel subterrane (passive continental margin) (Wrangel Island, East

Russian Southeast) KHV Voznesen terrane (continental-margin arc) (Southern part of Russian Southeast) Kilbuck-Idono terrane (cratonal) (Southwestern and west-central Alaska) Kamuikotan terrane (accretionary wedge and subduction zone - predominantly oceanic rocks) (Hokkaido Island, Japan) Kholondzhikansk terrane (turbidite basin) (Northwestern part of Russian Southeast) KLM Kiselevka-Manoma terrane (accretionary wedge and subduction zone

KMM Murgal subterrane (island arc) (Southeastern part of Russian Northeast) KMT Taigonos subterrane (island arc) (Southeastern part of Russian KO Kootenay terrane (metamorphosed continental margin) (Southeastern part of Canadian Cordillera) Kolyma-Omolon superterrane (Central part of Russian Northeast) KOAC Aluchin terrane (subduction zone - predominantly oceanic rocks)

(Central part of Russian Northeast) KOAG Argatas terrane (accretionary wedge - predominantly oceanic rocks) (Central part of Russian Northeast) KOAL Alazeya terrane (island arc) (North-central part of Russian Northeast) KOB Beryozovka terrane (turbidite basin) (North-central part of Russian KOKN Kular-Nera terrane (accretionary wedge - predominantly turbidites)

(Central part of Russian Northeast) KOKT Khetachan terrane (island arc) (North-central part of Russian Northeast) Oloy terrane (North- to east-central part of Russian Northeast) KOLE Eropol subterrane of Oloy terrane (island arc) (North- to eastcentral part of Russian Northeast) KOLO Oloychan subterrane of Oloy terrane (island arc) (North- to east-central part of Russian Northeast) KOLS Siverskiy subterrane of Oloy terrane (island arc) (North- to east-central part of Russian Northeast)

Munilkan terrane (ophiolite) (Northwestern part of Russian Northeast) Omolon terrane (cratonal) (Southeastern part of Russian Northeast) Prikolyma terrane (passive continental margin) (Central part of Russian Rassokha terrane (oceanic crust) (Central part of Russian Northeast) Omulevka terrane (passive continental margin) (South-central part of Russian Northeast)

Yarakvaam terrane (island arc) (Northeastern part of Russian Northeast) Khor terrane (continental-margin arc) (Eastern part of Russian Southeast) Kronotskiy terrane (island arc) (Southeastern Kamchatka Peninsula) Kamchatskiy Mys terrane (oceanic crust) (Eastern Kamchatka Peninsula) Kotel'nyi terrane (passive continental margin) (New Siberian Islands) Kuril-Kamchatka terrane (accretionary wedge - predominantly turbidites) (East of Kamchatka Peninsula and East of Kuril Islands) Kamyshovy terrane (island arc) (Sakhalin Island) Koyukuk terrane (island arc) (West-central Alaska)

Laoelin-Grodekovsk terrane (island arc) (Southwestern part of Russian Southeast) Livengood terrane (oceanic crust, seamount, or ophiolite) (East-central Alaska) Lan terrane (turbidite basin) (Northern part of Russian Southeast) Lomonosov terrane (passive continental margin) (Cenozoic) (Arctic Ocean and Chukchi Sea) Manley terrane (turbidite basin)-(East-central Alaska) Mainitskiy terrane (island arc) (Northeastern part of Russian Northeast) McKinley terrane (oceanic crust, seamount, or ophiolite) (Central Alaska Range,

Malokurilsk collage (Sea of Okhotsk) Maclaren terrane (continental-margin arc) (Eastern Alaska Range, Alaska) Mamyn terrane (continental-margin arc) (Northwestern part of Russian Southeast) Minchumina terrane (passive continental margin) (Central Alaska) Minook terrane (turbidite basin) (East-central Alaska) Monashee terrane(cratonal) (Southeastern part of Canadian Cordillera)

Methow terrane (turbidite basin) (Southern Canadian Cordillera and northern U.S.A. Pacific Northwest) Mystic terrane (passive continental margin) (Central Alaska) Nason terrane (accretionary wedge or subduction zone - predominantly turbidites) (North-central part of U.S.A. Pacific Northwest)

Nabilsky terrane (accretionary wedge and subduction zone - predominant) oceanic rocks) (Sakhalin Island) Nemuro terrane (island arc) (Hokkaido Island, Japan, and Lesser Kuril Islands. Russian Southeast) Northwind Ridge terrane (passive continental margin) (late Early Cretaceous and Tertiary) (Beaufort Sea, Chukchi Sea, and adjacent area) Nora-Sukhotin terrane (island arc) (Western part of Russian Southeast)

Nutesyn terrane (island arc) (Northern part of Russian Northeast) Nyac terrane (island arc) (Southwestern Alaska) Nixon Fork terrane (passive continental margin) (Central and west-central Olympic Core terrane (accretionary wedge or subduction zone - predominant) turbidites) (Southern Canadian Cordillera and northern U.S.A. Pacific Olds Ferry terrane (island arc) (Southeastern part of U.S.A. Pacific Northwest)

OIR Omchogsk-Iruneisk collage (Sea of Okhotsk) Okhotsk terrane (cratonal) (Southeastern part of Russian Northeast) OKM Okhotomorsk collage (Sea of Okhotsk) Olyutorka-Kamchatka terrane (Korvak Highlands and Kamchatka Peninsula) OKO Olyutorka subterrane (island arc) (Koryak Highlands, northeastern OKV Valaginskiy subterrane (island arc) (Eastern Kamchatka Peninsula) Oldoi terrane (passive continental margin) (Northwestern part of Russian

Southeast) Oshima terrane (accretionary wedge and subduction zone - predominantly oceanic rocks) (Hokkaido Island, Japan) Penzhina-Anadyr terrane (Western part of Koryak Highlands, eastern Russian Northeast) PAB Ust-Belaya subterrane (accretionary wedge and subduction zone predominantly oceanic rocks) (Western part of Koryak Highlands, eastern Russian Northeast)

PAG Ganychalan subterrane (accretionary wedge and subduction zone predominantly oceanic rocks) (Western part of Koryak Highlands, eastern Russian Northeast) Main subterrane (accretionary wedge and subduction zone predominantly turbidites) (Western part of Koryak Highlands, eastern

Porcupine terrane (passive continental margin) (Northeastern Alaska and northwestern Yukon Territory)

Russian Northeast)

West Kamchatka terrane (Korvak Highlands, Russian Northeast and Kamchatka WKO Omgon subterrane (accretionary wedge - predominantly turbidites) (Western Kamchatka Peninsula) Ukelayat subterrane (accretionary wedge - predominantly turbidite (Koryak Highlands, Russian Northeast) White Mountains terrane (passive continental margin) (East-central Alaska) West Pekulney terrane (island arc) (Northeastern part of Russian Northeast) Wrangellia superterrane (island arc) (Southern Alaska, southeastern Alaska, and western Canadian Cordillera)

WRA Alexander sequence (island arc) (Eastern-southern Alaska, southeastern Alaska, and western Canadian Cordillera) WRP Peninsular sequence (island arc) (Southern Alaska) WRW Wrangellia sequence (island arc) (Southern and southeastern Alaska, Alaska Peninsula, and western Canadian Cordillera) Wickersham terrane (passive continental margin) (East-central Alaska) West Sakhalin terrane (correlated with Sorachi-Yezo terrane) (turbidite basin) (Sakhalin Island) Windy terrane (metamorphic) (Central and eastern Alaska Range, Alaska) Yakutat terrane (accretionary wedge or subduction zone - predominantly turbidites) (Southern Alaska and northern Gulf of Alaska) of Russian Northeast) York terrane (passive continental margin) (Western Seward Peninsula)

Terpeniya terrane (island arc) (Sakhalin Island, Russian Southeast)

rocks) (Southeastern part of Russian Southeast)

(Northeastern part of Russian Southeast)

part of Russian Northeast)

Kamchatka Peninsula)

Uniya-Bom terrane (turbidite basin) (Northern part of Russian Southeast)

Taukha terrane (accretionary wedge and subduction zone - predominantly oceanic

Ulban terrane (accretionary wedge or subduction zone - predominantly turbidites)

Vel'may terrane (subduction zone - predominantly oceanic rocks) (Northeastern

Viliga terrane (passive continental margin) (East-central part of Russian

Vetlovskiy terrane (accretionary wedge - predominantly oceanic rocks) (Eastern

Wallowa terrane (island arc) (Southeastern part of U.S.A. Pacific Northwest)

Yanranay terrane (accretionary wedge - predominantly turbidites) (Eastern part Yukon-Tanana terrane (metamorphosed continental margin) (East-central Alaska, southeastern Alaska, and western Canadian Cordillera) Zolotogorskiy terrane (metamorphosed continental margin) (Northeastern part of Russian Northeast) Zhuravlesk-Tumnin (turbidite basin) (Eastern part of Russian Southeast)

GEOLOGIC MAP SYMBOLS

CONTACTS, FAULTS, AND PATTERNS boundary. Includes marginal contacts of overlap sedimentary and volcanic assemblages, basinal deposits, and plutons - Postaccretion fault-Major fault that formed after accretion; sense of displacement unknown

Postaccretion thrust fault--Sawteeth point toward upper plate Postaccretion strike-slip fault--Arrows denote relative strike-slip displacement Postaccretion normal or extensional fault-Barb indicates downdropped block; locally superposed on older thrust fault ---- Fault bounding terrane or oceanic plate--Dotted where concealed beneath overlap assemblages or basinal deposits. Sense and age of net displacement unknown

concealed. Arrows denote relative displacement ---- Thrust or reverse fault bounding terrane or oceanic plate--Dotted where concealed. Sawteeth point towards upper plate approximately located or concealed beneath younger deposits

---- 30 ---- Selected ocean floor magnetic lineation--Number shows correlation with geomagnetic polarity time scale Minor offshore Mesozoic or Cenozoic basin--Thickness greater than about 2 to 3 km. Named where space permits

(AAA Large seamount or oceanic plateau HESS SEAMOUNT

Small seamount BLANCO F.Z. Oceanic fracture zone

Czs/AAN Combined abbreviation for terrane (AAN) and stratigraphically overlying overlap assemblage or basinal deposits (Czs)

Abbreviation (in parentheses) for named assemblage of sedimentary or volcanic rocks; used in combination with age and lithologic symbol where space permits

Unnamed structural melange unit

oceanic rocks) (Eastern part of Canadian Cordillera) Cadwallader terrane (island arc) (Southern part of Canadian Cordillera) Chelan Mountains terrane (oceanic crust) (North-central part of U.S.A. Pacific CGM McHugh Complex and correlative units (subduction zone - predominantly oceanic rocks) (Southern and southeastern Alaska) Pogranichny collage (Sea of Okhotsk) Valdez Group and correlative units (accretionary wedge - predominant turbidites) (Southern and southeastern Alaska)

CHU Chulitna terrane (oceanic crust, seamount, or ophiolite) (Central Alaska Range

North Chukchi (Vil'kitskii). sedimentary basin (Tertiary and Quaternary)

Novosibirsky sedimentary basin (Late Cretaceous to Quaternary) (East Siberian

Okhotsk-Chukotka volcanic-plutonic belt (Cretaceous and Paleocene) (Eastern

Omineca-Selwyn plutonic belt (mid-Cretaceous) (Eastern Canadian Cordillera,

interior and northern Alaska, and northern Russian Northeast)

Oregon-Olympic sedimentary forearc basin (Eocene to Miocene) (U.S.A. Pacific

Oshima sedimentary-volcanic basin (late Paleogene to Quaternary) (Hokkaido

Penzhina sedimentary basin (mid- and Late Cretaceous) (Central part of Russian

Rauhcha sedimentary basin (Late Jurassic to mid-Cretaceous) (Northeastern part

Spences Bridge volcanic-plutonic belt (mid-Cretaceous) (Southern British

Sanak-Baranof plutonic belt (Late Cretaceous and early Tertiary) (Coastal

Skeena sedimentary assemblage (Early Cretaceous) (Northern British Columbia,

Skonun sedimentary assemblage (Miocene and Pliocene) (East of Queen Charlotte

Sakhalin-Primorye volcanic belt (late Tertiary and Quaternary) (Sea of Japan and

Torom sedimentary basin (Late Jurassic and Early Cretaceous) (Northeastern part

Tahtsa-Twin Sisters-Francois Lake magmatic assemblage (Middle Jurassic-Early

Upper Amur sedimentary assemblage (Jurassic) (Northwestern part of Russian

Uda volcanic-plutonic belt (Late Jurassic and Early Cretaceous) (Southern part of

Umlekan-Ogodzhin volcanic-plutonic belt (Jurassic and Cretaceous) (Northeastern

Uda-Zeya sedimentary basin (Late Jurassic) (Northern part of Russian Southeast)

Verkhoyansk collisional granite belt (Late Jurassic and Early Cretaceous)

West Kamchatka sedimentary basin (Tertiary) (Western Kamchatka Peninsula

Wrangell volcanic field (middle Tertiary to Holocene) (Eastern-southern Alaska)

Yukon-Kanuti volcanic-plutonic belt - volcanic part (early Tertiary) (Eastern-

NAC Western North American Craton (Archean through Cenozoic) (East of

NAM North American Craton Margin (Proterozoic, Paleozoic, and early

NSC North Asian Craton (Archean and Early Proterozoic) (Eastern part of

NSV North Asian Craton Margin (Verkhoyansk fold belt) (Paleozoic and early

Mesozoic) (Between North Asian craton and accreted terranes)

North Asian Craton - Stanovoy block (Archean and Early Proterozoic)

Amundsen Basin (Cenozoic) (Beaufort Sea, Chukchi Sea, and

KME Komandorsky Plate East (early Miocene) (Komandorsky Basin,

KMW Komandorsky Plate West (early Miocene) (Komandorsky Basin,

Mesozoic) (Between North American Craton and terranes of Canadian

Shirshov Ridge volcanic belt (early Tertiary?) (Western Bering Sea)

South Okhotsk sedimentary basin (Cenozoic) (Southern Sea of Okhotsk)

Tinro sedimentary basin (Late Cretaçeous and Cenozoic) (Sea of Okhotsk)

Cretaceous) (Central part of Canadian Cordillera)

(Southern and western parts of Russian Northeast)

ABBREVIATIONS FOR CRATON, CRATON MARGIN.

OCEANIC PLATE, AND BACK-ARC-SPREADING UNITS

Craton and Craton-Margin Rock Units

North Asian Craton and Craton Margin (Eastern and southern parts of Siberia)

(Southern part of North Asian Craton)

JA Juan de Fuca Plate (Cenozoic) (Eastern Pacific Ocean)

NAN Nansen Basin (Cenozoic) (Laptev Sea)

Northwest and offshore of Vancouver Island, Canadian Cordillera)

Nelson plutonic suite (Jurassic) (Southeastern Canadian Cordillera)

(Northern part of Chukchi Sea)

Island, Japan)

of Russian Northeast)

southern Alaska)

adjacent areas)

of Russian Southeast)

Russian Northeast)

Southern Alaska)

North American Craton and Craton Margin

Canadian Cordillera)

North Asian Craton)

Active Spreading Seafloor and Cenozoic Oceanic Plates

Eurasia Plate (East Siberian Sea)

adjacent area)

Bering Sea

Back-Arc Spreading Units

North American Plate (East Siberian Sea

Western Bering Sea)

Western Bering Sea)

Arctic Alaska superterrane (Northern Alaska)

KR Kuril back-arc unit (Cenozoic) (Southeastern Sea of Okhotsk)

Sea of Japan back-arc unit (Cenozoic) (Sea of Japan)

TECTONOSTRATIGRAPHIC TERRANES

[Arranged alphabetically by map symbol:

interpreted tectonic environment and region in parentheses]

AA Aleutia terrane (oceanic crust) (Probable Cretaceous and early Tertiary)

AAD DeLong Mountains terrane (passive continental margin) (Brooks Range,

AAE Endicott Mountains terrane (passive continental margin) (Brooks Range,

AAH Hammond terrane (passive continental margin) (Brooks Range, Alaska)

AAN North Slope terrane (passive continental margin) (North Slope and

AAT Tigara terrane (passive continental margin) (Northwestern Alaska and

Amur River terrane (accretionary wedge or subduction zone - predominantly

Anui terrane (metamorphosed continental margin) (Eastern part of Russian

Aniva terrane (accretionary wedge and subduction zone - predominantly oceanic

AP Aurora Peak terrane (continental-margin arc) (Eastern and central Alaska Range,

AR Arlis terrane (passive continental margin) (age unknown) (Beaufort Sea, Chukchi

ATW Attu-Prince William terrane (accretionary wedge - predominantly turbidites)

rocks) (Southeastern part of U.S.A. Pacific Northwest)

Alkatvaam terrane (accretionary wedge - predominantly turbidites) (Northeastern

Ayansk terrane (passive continental margin) (Northern part of Russian Southeast)

Baker terrane (accretionary wedge and subduction zone - predominantly oceanic

Badzhal terrane (accretionary wedge and subduction zone - predominantly oceanic

Bridge River (accretionary wedge and subduction zone - predominantly oceanic

BUM Malokhingansk terrane (continental-margin arc) (Western part of

BUT Turan terrane (continental-margin arc) (Western part of Russian

Cassiar terrane (passive continental margin) (Eastern part of Canadian

Cache Creek terrane (accretionary wedge and subduction zone - predominant

Argun terrane (cratonal) (Northwestern part of Russian Southeast)

Korvak Highlands, Russian Northeast)

rocks) (Northern part of Russian Southeast)

Bennett terrane (passive continental margin) (East Siberian Sea)

Baladek terrane (cratonal) (Northern part of Russian Southeast)

BSC Bering Sea collage (Northern Pacific Ocean and Bering Sea)

Broad Pass terrane (metamorphic) (Central Alaska Range, Alaska)

oceanic rocks) (East- and west-central, Alaska, and Southern Brooks

AG Angayucham terrane (accretionary wedge and subduction zone - predominantly

Avekova terrane (cratonal) (East-central part of Russian Northeast)

turbidites) (Northern part of Russian Southeast)

rocks) (Sakhalin Island, Russian Southeast)

(Northern Pacific Ocean and Bering Sea)

eastern Brooks Range, Alaska)

western Seward Peninsula)

Sea, and adjacent area)

Academy of Sciences collage (Sea of Okhotsk)

(Northern Pacific Ocean)

Northwest)

Cordillera)

Northwest)

Chugach terrane (Southern and southeastern Alaska)

Bureya superterrane (Western part of Russian Southeast)

Russian Southeast)

Active Spreading Seafloor (Pacific Ocean)

PAC Pacific Plate (Cenozoic) (Pacific Ocean)

part of Russian Southeast

and adjacent Sea of Okhotsk)

Columbia, Canadian Cordillera)

Island. Canadian Cordillera)

Northeast)

North Okhotsk sedimentary basin (Sea of Okhotsk)

LIST OF MAP UNITS AND GEOLOGIC MAP SYMBOLS FOR SHEETS 1 AND 2

1994

By Warren J. Nokleberg¹, Leonid M. Parfenov², James W.H. Monger³, and Boris V. Baranov², Stanislav G. Byalobzhesky², Thomas K. Bundtzen⁴, Tracey D. Feeney³, Kazuya Fujita⁶,

Steven P. Gordey³, Arthur Grantz¹, Alexander I. Khanchuk², Boris A. Natal'in², Lev M. Natapov⁵,

Ian O. Norton⁷, William W. Patton¹, Jr., George Plafker¹, David W. Scholl¹, Sergei D. Sokolov²,

Gleb M. Sosunov⁵, David B. Stone⁸, Rowland W. Tabor¹, Nickolai V. Tsukanov², Tracy L. Vallier¹, and

Koji Wakita⁹

⁸ - University of Alaska ⁹ - Geological Survey of Japan

⁶ - Michigan State University

¹ - U.S. Geological Survey

² - Russian Academy of Sciences

³- Geological Survey of Canada

⁵ - Russian Committee on Geology

⁷- Exxon Production Research Company

⁴ - Alaska Division of Geological and Geophysical Surveys

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